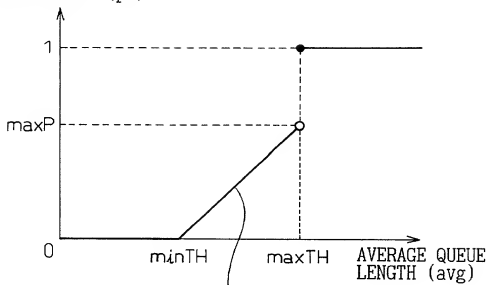


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US

Fig.1

DISCARDING
PROBABILITY (pb)



$$pb = \max P \times \frac{\text{avg} - \text{minTH}}{\text{maxTH} - \text{minTH}}$$

Fig. 2

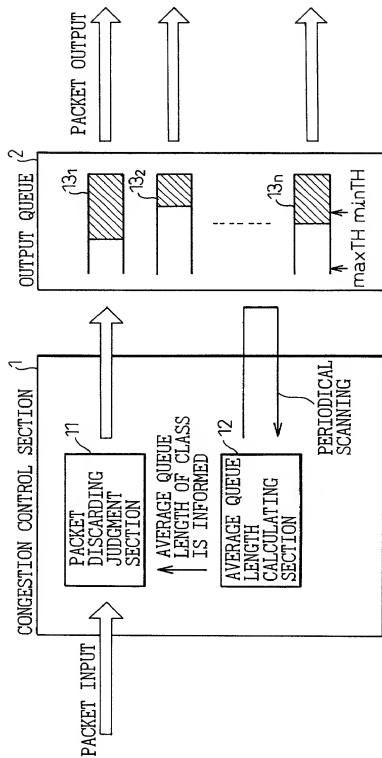


Fig.3

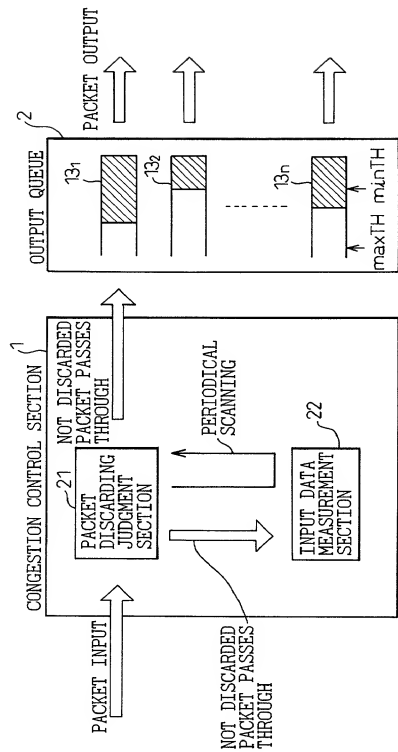


Fig.4

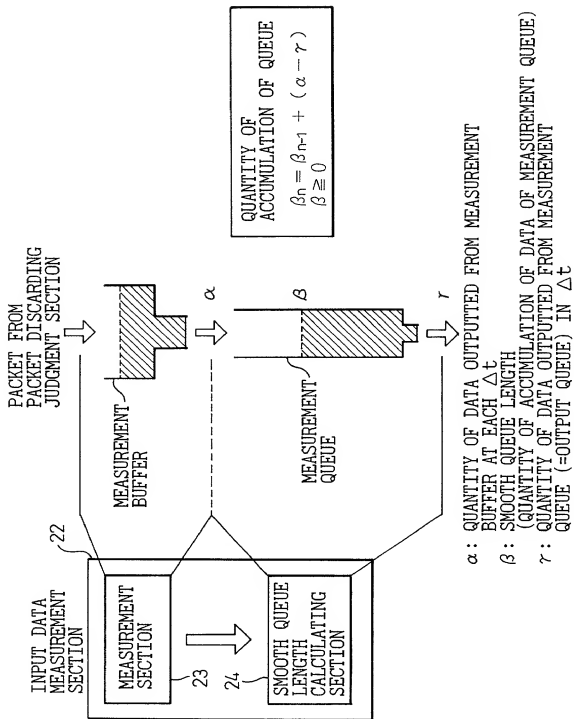


Fig.5A

IN THE CASE OF
ACCUMULATION
QUANTITY $> \alpha$

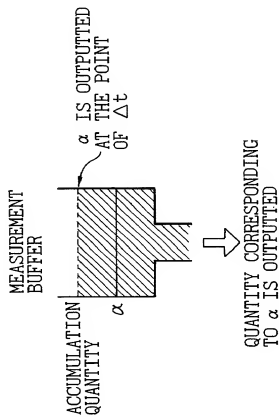


Fig.5B

IN THE CASE OF
ACCUMULATION
QUANTITY $< \alpha$

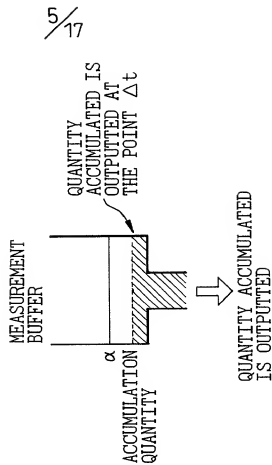


Fig.7

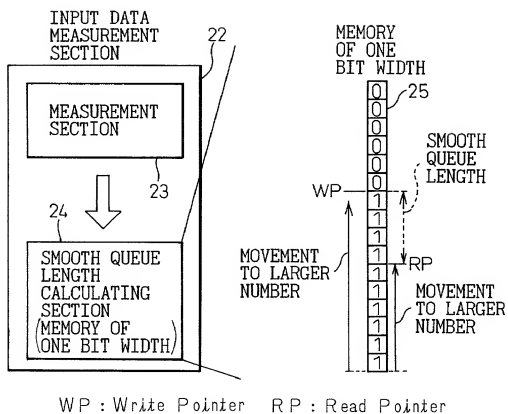
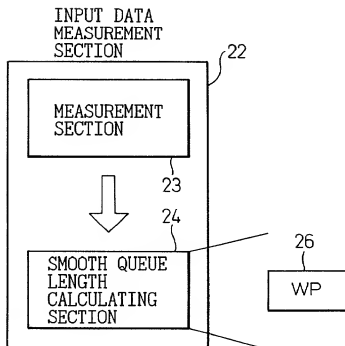
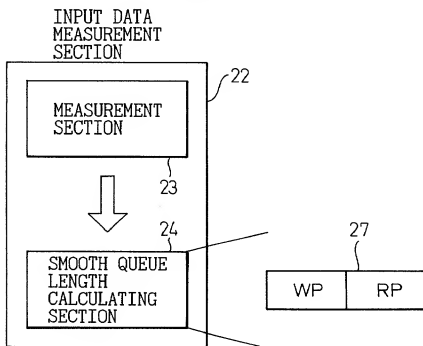


Fig.8



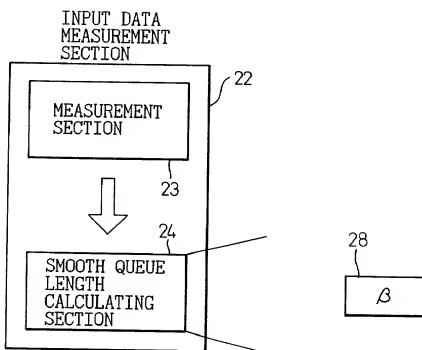
WP : Write Pointer

Fig.9



WP : Write Pointer RP : Read Pointer

Fig.10



β : SMOOTH QUEUE LENGTH

Fig.11A

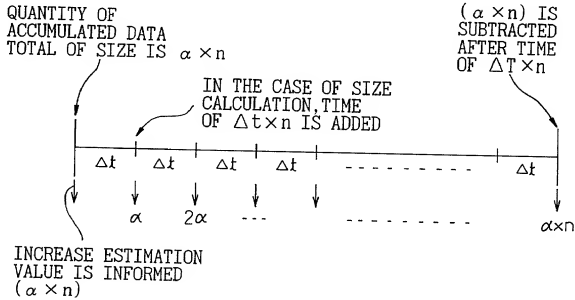


Fig.11B

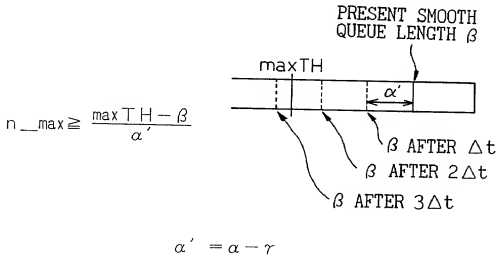


Fig.12

WHEN AN INCREASE ESTIMATION VALUE AT THE POINT OF $2\Delta t$ WAS INFORMED, IT WAS POSSIBLE TO ESTIMATE THAT THE VALUE β IS MORE INCREASED IN THE FUTURE

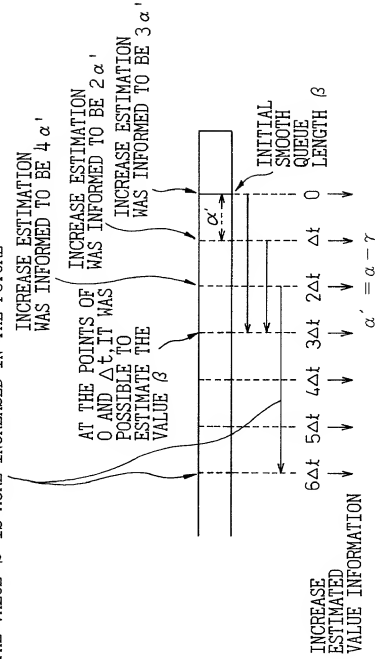


Fig.13

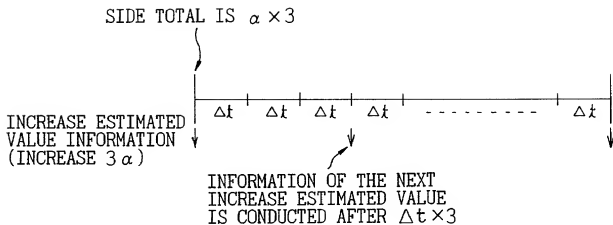


Fig.14

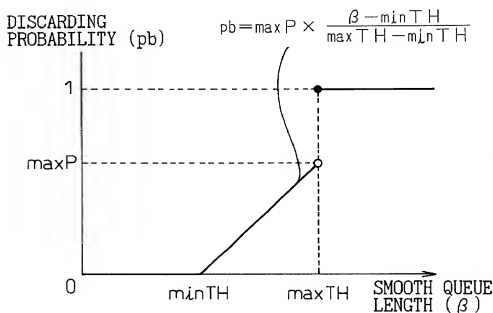


Fig.15

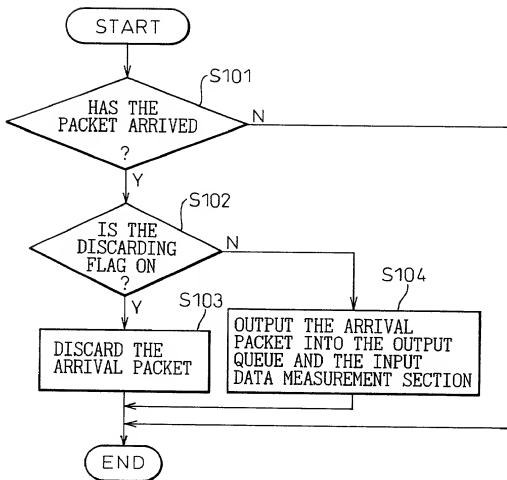
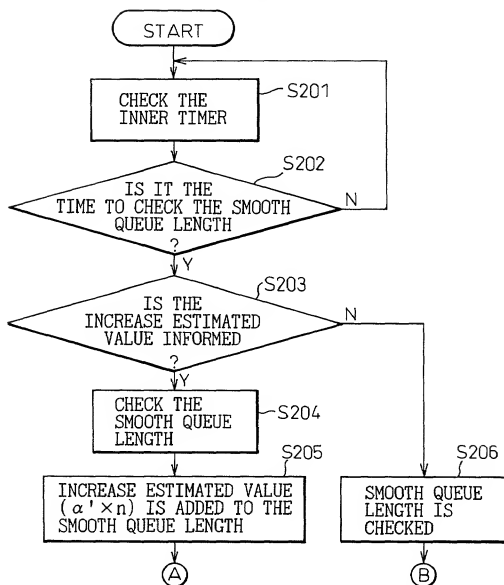


Fig.16



$$\alpha' = \alpha - \gamma$$

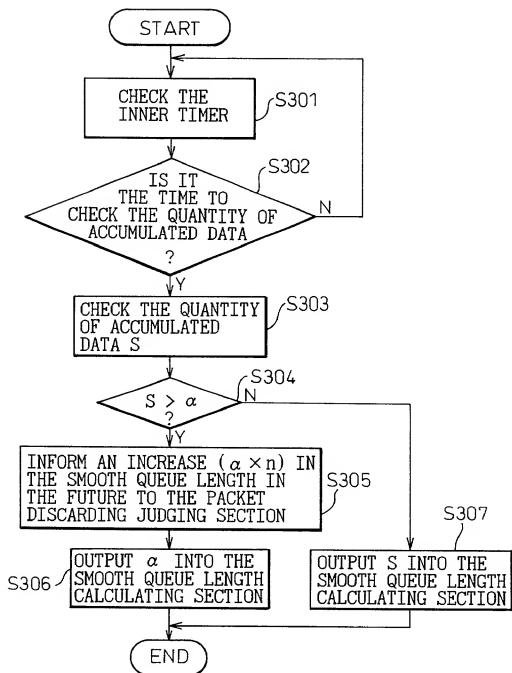
α : QUANTITY OF DATA INPUTTED INTO THE SMOOTH QUEUE LENGTH CALCULATING SECTION AT EACH Δt

γ : QUANTITY OF DATA OUTPUTTED FROM THE SMOOTH QUEUE LENGTH CALCULATING SECTION AT EACH Δt

maxTH: THRESHOLD VALUE OF THE QUEUE THAT HAS BEEN SET

$\Delta t \times n$: EFFECTIVE TIME OF INFORMATION OF INCREASE ESTIMATED VALUE

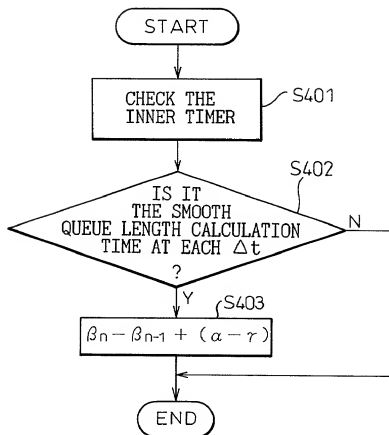
Fig.18



S: QUANTITY OF ACCUMULATED DATA IN THE MEASUREMENT SECTION

α: QUANTITY OF DATA OUTPUTTED FROM THE MEASUREMENT SECTION AT EACH Δt

Fig.19



β_{n-1} : SMOOTH QUEUE LENGTH UP TO THE LAST TIME
 β_n : SMOOTH QUEUE LENGTH OF THE PRESENT TIME
 α : QUANTITY OF DATA INPUTTED INTO THE SMOOTH QUEUE LENGTH CALCULATING SECTION IN Δt
 γ : QUANTITY OF DATA OUTPUTTED FROM THE SMOOTH QUEUE LENGTH CALCULATING SECTION IN Δt